



The influence of regulatory framework on environmental impact assessment in the development of offshore wind farms in Spain: Issues, challenges and solutions

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ABSTRACT

It is clear that renewable energies, and particularly offshore wind power, constitute an opportunity to meet international and national commitments and targets for the reduction of greenhouse gas emissions as established by the United Nations Framework Convention on Climate Change, the Kyoto Protocol, and the Paris Agreement, and they therefore constitute an element of the approach necessary to address global warming in general. However, such sources of energy are not without drawbacks, given that their installation, operation and decommissioning may potentially cause damage to and threaten the marine environment. It is therefore important to achieve a balance between the environmental benefits of using the oceans and the need for protection of the environment.

Scientific uncertainty and lack of initial data on the potential effects of these facilities, have led to long delays in processing Environmental Impact Assessments, and public opposition to these projects has contributed to stagnation in terms of its development in Spain. Furthermore, incomplete environmental impact studies and inappropriate environmental impact statements (such as those that fail to assess the synergistic effects of nearby facilities and all components thereof) can lead to delays in processing applications, the inadmissibility of wind projects, and ineffective protection of the marine environment.

The current regulations on Environmental Impact Assessment (EIA) -along with case-law decisions-, are an attempt to solve several of these varied problems and clashes of interests between promoters, citizens, and administrators, while protecting biodiversity and fighting climate change. However, some regulatory gaps and legal uncertainties still require regulatory improvement in this respect.

The main objective of this research is therefore to assess the real and potential future legal and factual problems in the field of environmental assessment associated with offshore wind farms in Spain, in an analysis of the responses and solutions provided by the Directive 2014/52/EU and the 21/2013 Environmental Assessment Law. Regulatory improvements are proposed, which could help to boost the development of marine renewable energy facilities, promoting greater public consensus, while at the same time protecting biodiversity and the marine environment.

The main proposed improvements consist of establishing a joint or coordinated processing of EIA with other assessments and procedures (such as the evaluations derived from birds and habitats directives); elaborating guidance documents which help promoters in analyzing synergistic and cumulative effects in their Environmental Impact Studies, hereafter EIS; enhancing the role of the scoping phase and, specially, considering the inclusion of this stage in the regulation of the simplified EIA procedure; improving public information and participation in the EIA process through the establishment of the obligation of disseminate relevant information through electronic means, the expansion of the legal concept of “interested persons” and the inclusion of public participation phases both in early stages of the procedure and after substantial modifications of the project or the study of EIA.

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1. Introduction

The use of renewable energy is well known to help reduce concentrations of greenhouse gases in the atmosphere and thus mitigate the effects of climate change, but the technologies involved are not totally harmless to the environment (Rodríguez-Rodríguez et al., 2016). The marine environment can be affected throughout the different phases of the life cycles of marine renewable energy schemes (specifically of offshore wind farms, hereafter OWFs), during installation, maintenance, operation and decommissioning (Soria-Rodríguez, 2016). Each element that make up the installation -and their combined effects and their synergies with other facilities nearby (García, 2014) - can generate impacts (e.g., wind turbines can cause noise and collisions of birds and bats and the submarine cables can generate electromagnetic fields) (Rodríguez-Rodríguez et al., 2016).

Many of the impacts of OWFs are similar to those derived from onshore wind facilities, although others are specific to the offshore case, mainly those associated with the effect of noise on marine animals (Snyder and Kaiser, 2009).

In addition to acoustic disturbance, electromagnetic fields, impact on the landscape, and the loss or reduction of biodiversity (changes to and the destruction of wild marine habitats, which can affect marine mammals, sea turtles, and benthic and pelagic species, or cause bird and bat collisions) have been reported as the major impacts of OWFs (Rodríguez-Rodríguez et al., 2016; Soria-Rodríguez, 2016).

In light of the potential negative effects derived from the life cycles of these facilities, several regulations have been implemented to establish preventive mechanisms aimed at protecting the environment, at various different levels.

With the approval of the Marine Strategy Framework Directive 2008/56/EC, transposed into Spanish law by Law 21/2013 on the Protection of the Marine Environment, and with the Maritime Spatial Planning Directive 2014/89/EU, hereafter the MSP 2014 Directive, transposed into Spanish law by Royal Decree 363/2017, there is a central role for marine spatial planning in establishing a balance between the protection of the marine environment and the sustainable development of activities therein, including the generation of energy from renewable energy sources (The European Parliament and the Council, 2014a). In Spain, the Strategic Environmental Assessment of the Spanish Coast for the Installation of OWFs, hereafter SEA, was drawn up in 2009 by the ministries of environment and energy. Based on environmental criteria, it establishes suitable zones, exclusion zones (in which OWFs are not permitted), and suitable zones with conditions (in which special precautions must be taken at a later stage in the project) (Spanish Government, 2009). However, this strategic study has now become obsolete because does not take into account the designation of further Marine Protected Areas (Rodríguez-Rodríguez et al., 2016).

Furthermore, for wind power installations with more than 50 MW of installed capacity, Spanish regulations require a prior “wind farm characterization”, consisting of the issuing of reports by various potentially affected administrations and containing previous analyses of the environmental effects of the OWFs within the different sites comprising a predetermined marine area (known as a “marine offshore area”) [L1].

Then, an Environmental Impact Assessment, hereafter EIA, acts as a more focused mechanism of protection, placing special emphasis on the effects of a specific marine wind farm project in the environment in which its the application was made. The appropriate use of EIAs could ensure the sustainability of specific developments in coastal or marine areas (Rodríguez-Rodríguez et al., 2016).

The present research focuses on this last point, having as its aim the analysis of important legal and factual problems facing the development of offshore wind energy installations in Spain in relation to possible solutions provided by the regulations at national and international levels in EIA and other related regulations (such as those relating to

biodiversity protection), with the intention of proposing regulatory improvements aimed at enhancing the development of these facilities, promoting greater public consensus as well as protecting biodiversity and the marine environment.

2. Methods

The Spanish and European regulations on EIA have been used as the primary sources in the preparation of this research, as have other legal texts regulating other closely related aspects, especially those governing the installation of marine renewable technologies and the protection of biodiversity. Jurisprudence and scientific literature have also been referred to in respect of the detection of the main legal and procedural conflicts. Due to the underdevelopment of marine renewable energies in Spain, several of the conflicts analysed and identified here relate to terrestrial wind power. These aspects, together with the responses of the courts on these matters, can be extrapolated to the field of offshore wind power, providing adequate analysis and effective solutions. Scientific articles have also been consulted in an attempt to remove environmental and procedural obstacles to the development of offshore wind reported in other nations where the industry is more developed. Doctrinal articles, websites of public institutions, and soft law texts have also been used.

The main normative and procedural interactions between the EIA and the procedure necessary to obtain the required authorizations for the construction, exploitation and withdrawal of an OWF have been analysed in Section 3.

The key legal and procedural problems in environmental impact assessment faced by offshore wind farms in Spanish waters are shown in Section 4, both in terms of the obstacles reported in other countries in which wind energy is more widespread, and the barriers to the development of offshore and onshore wind facilities in Spain. Some solutions derived from jurisprudence, doctrine and legal texts have also been considered, mainly within the field of the Directive 2014/52/EU, hereafter the EIA 2014 Directive, and the 21/2013 Environmental Assessment Law, hereafter LEA. Some of the challenges and ideas for regulatory improvement in this respect are then exposed.

In addition, a practical analysis of the EIA of an OWF project in Spain (taking “FLOCAN 5 Project” as a case study) have been conducted in Section 5.

The main conclusions have been summarized in Section 6. These are expressed in the form of proposals reached after the analysis of the legal problems and regulations regarding EIA for OWFs.

Key pieces of legislation and Court Judgements in Spain and the EU connected with each of the identified problems are presented in tabular form and via a reference list in Annex I.

3. Interaction between the environmental impact assessment of projects with the life cycle of offshore wind farms

EIA is defined by the LEA as an “instrumental procedure” of “another substantive procedure” [L2].

In the case of offshore wind power, the installation and decommissioning procedures are the substantive procedure, as driven by the General Directorate for Energy Policy and Mines, hereafter GDEPM, which is the substantive body responsible for issuing the relevant authorizations for Installation and decommissioning - [L1].

The EIA procedure is driven by the environmental body, the General Directorate of Quality and Environment Assessment and Natural Environment, hereafter GDQANE, and provides the assessment and environmental judgment necessary to allow GDEPM to reach a decision on whether to authorize the project. [L1], [L2].

3.1. Environmental impact assessment for investigating the wind resource

In an OWF with more than 50 MW of installed capacity, there is a

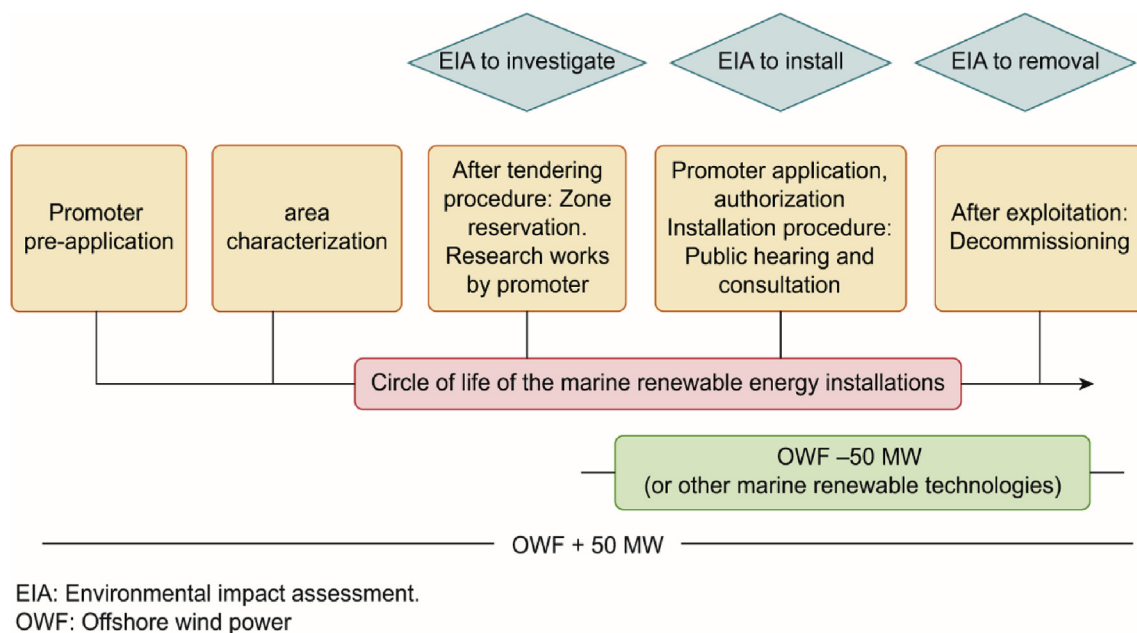


Fig. 1. Interactions between the EIA procedure and the authorization procedure over the life cycle of an Offshore Wind Farm project in Spanish Marine Waters.

phase prior to the authorization procedure for the application of the installation (after a pre-request, a characterization of the area, and a competitive tendering phase), in which the selected developer will obtain a 2-year license to study the wind resource (which will permit it to request later authorizations for installation and operation), requiring an EIA before carrying out these research activities (e.g., erecting measuring towers) in order to evaluate their impact on the environment (Fig. 1), [L1].

This EIA is not needed for OWFs with a lower installed capacity, or for other marine renewable technologies, due to the fact that the previous phases of characterization and investigation do not take place (the procedure starts with an application for authorization of the installation) (Fig. 1), (Table 1).

3.2. Environmental impact assessment of OWF installation

Another EIA is then carried out for installation of an OWF, in which according to case law the potential effects of operation must be taken into account, and not just those of construction (Born, 2016) -. This EIA is conducted in parallel with the authorization phase of the installation of the OWF and for all different types of Marine Renewable Installations, regardless of their installed capacity. However, there is a distinction in terms of the type of EIA to be carried out; thus an “ordinary” EIA is conducted for OWFs of more than 30 MW (as set out in the LEA in Annex I, group 3, letter i), while a “simplified” EIA is needed for OWFs of less than 30 MW (which also meet other requirements, such as consisting of less than 50 turbines or being located at a distance exceeding 2 km away from another wind farm), and for all other marine renewable schemes (as set out in the LEA in Annex II, group 3, letters g and h)

(Table 1) [L2].

In OWFs with a capacity exceeding 30 MW, in which an ordinary EIA is required, the promoter may request the environmental body to draw up a scoping document that specifies the aspects to be covered by the EIS (Table 1). The developer then prepares and submits the EIS, with an application for the authorization of the installation, together with the other required documents (details of the installation project and the request to occupy the maritime-terrestrial public domain), and all this is submitted in a single set of public information documents (Fig. 1). The process of consultation and the issuing of reports by the affected public administrations and interested persons subsequently takes place. Later, within a maximum period of 4 months (extendable for up to 2 more months) from the receipt of the file - a timeline that covers the processing of the EIA proper, because the previous steps are merely in preparation for this - the environmental body issues the environmental impact statement (exceptionally, the project may be declared inadmissible within the first 20 days) (Table 2), (Fig. 2). In order to issue the environmental impact declaration, hereafter EID, the EIS drawn up by the promoter is pre-evaluated, to assess in particular whether the reports have been taken into account, and whether the public have been informed and consulted in accordance with the law, and whether the environmental body has received all the relevant information (if not, the promoter must remedy any defects (Fig. 2) [L2].

For OWF installation projects with a capacity of less than 30 MW or for other renewable energy sources, a “simplified” EIA takes place, in which the developer cannot request a scoping document from the environmental agency and must submit the EIS directly; this is then submitted at a single public hearing with the other documents, just as is also required for the “ordinary” EIA- (Table 1), (Table 2), (Fig. 2).

Table 1

Different types of Environmental Impact Assessment according to the potential installed Capacity (MW) of Offshore Wind Farm projects.

	OWF +50	OWF 30–50 MW	OWF -30	Other marine renewable energies
EIA research activities	yes	No (no research activities)	No (no research activities)	No (no research activities)
EIA authorization Installation	Yes: ordinary	Yes: simplified	Yes: simplified ^a	Yes: simplified ^a
EIA decommissioning	yes	yes	yes	yes

EIA: Environmental Impact Assessment. OWF: Offshore Wind Farm.

^a Note: This table takes into account only the installed capacity (MW). However, OWFs consisting of more than 50 turbines or located less than 2 km away from another OWF shall also be subject to an ordinary EIA irrespective of their capacity.

Table 2

Differences between ordinary EIA and Simplified EIA under the 21/2013 Environmental Assessment Law. EIA: Environmental Impact Assessment. OWF: Offshore Wind Farms. m: months. (+): extendable time limit. GDEPM: the General Directorate for Energy Policy and Mines.

Main differences:	Ordinary EIA	Simplified EIA
Reduction of deadlines in simplified EIA	4 (+ 2) m. -and the consultation phase are realized before the initiation of this timeline-	3 m. -and the realization of the consultaion phase is included within this timeline-
Deletion of steps in simplified EIA	<ul style="list-style-type: none"> - There may be a preliminary or preparatory phase: Possibility of drawing up a scope document by the environmental body at the decision of the promoter. - Performance of consultations: by the Substantive body (the GDEPM) in the substantive procedure (concerning to the authorization of the installation of OWFs) - There is a public information phase 	<ul style="list-style-type: none"> - There is no preparatory phase: omission of scoping phase. - Performance of consultations: by the Environmental body - There is no public information phase

However, although there is a consultation phase related to the granting of administrative authorization, this step is not mandatory in respect of the EIS according to the LEA. This omission is addressed by RD 1028/2007 and RD 1955/2000, which extend the scope of the consultation phase to the EIS. On the other hand, the environmental body must issue the declaration more quickly than in the ordinary EIA, within 3 months, which includes the announcement of the public information (Table 2), (Fig. 2) [L1], [L2], [L3]. Finally, depending on the results of the simplified EIA, the environmental body will decide whether the project should then be submitted to an ordinary EIA, or whether it is necessary at all (Fig. 2) [L2].

In both types of EIA, the EID has a dual role:

On the one hand, the EID will be used to determine whether or not the project is suitable in environmental terms. If it is suitable, the EID is then used to determine any conditions or corrective or compensatory measures that may be necessary. The EID has a quasi-binding efficacy, because the DGPM can disagree with it (any discrepancies being resolved in this case by the Council of Ministers). Moreover, no direct appeal by the interest parties is possible (they can only appeal the installation authorization issued by the GDEPM) [L2], (Alenza, 2009).

On the other hand, the issuing of the EID serves as the starting date for the computation of the maximum period of 45 days in which the GDEPM must pronounce on the authorization of the installation [L1].

3.3. Environmental impact assessment for offshore wind farm decommissioning

Among the causes of the withdrawal of facilities, the law states: abandonment or unjustified disuse for one year, resignation of the developer as accepted by the Administration, by mutual agreement of both, or the expiration of the term granted for its exploitation, [L4]. In practice, the current useful life of these facilities is about 20 or 30 years (Smyth et al., 2015), consequently, after this period of time could be considered its decommissioning.

In all cases, the State administration decides, ex officio or at the request of a party, on the maintenance of the facilities or their removal by the interested party (i.e., the owner of the offshore wind farm) and at the expense of that party. [L3], [L4].

Within projects subject to EIA, not only must the installation of the infrastructure that makes up an OWF be considered, but also any subsequent withdrawal, as expressly indicated in the LEA [L2], which along the same lines as the CJEU, defines a broad concept of “project” that includes decommissioning or demolition works (Fig. 1.), (Table 1) (Razquin, 2014a).

From an environmental point of view, the distinction between the total and partial removal of OWF installations has become particularly relevant because of the important function of the installation (mainly its foundations) as an artificial coral reef, around which a new habitat can be created. This new habitat could be altered or destroyed if a total removal (rather than a partial removal) of the installation is undertaken (Smyth et al., 2015). In this respect, although the international regulations establish, as a general rule, the obligation of states to carry out the complete removal of abandoned or disused OWFs (with a view to

promoting the safety of maritime navigation), they leave the door open to partial removal, considering other factors such as the protection of the marine environment (Abad, 2015; Smyth et al., 2015; United Nations, 1982).

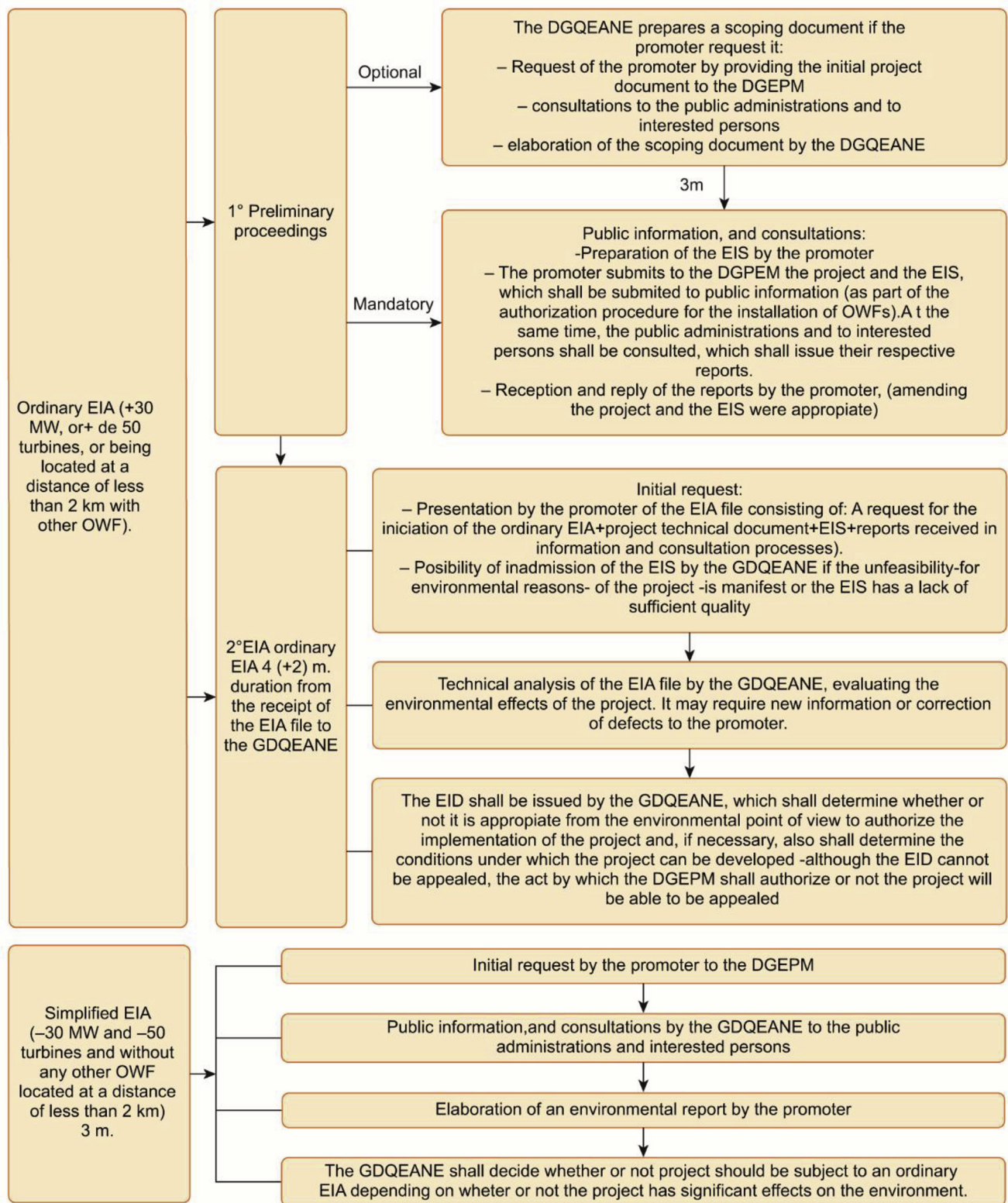
4. Problems, solutions and challenges in environmental impact assessment regulations

4.1. Solving potential conflicts between wind energy installations and the protection of biodiversity

The development of onshore wind power in Spain has given rise to a conflict of two interests that make up European and national policy: the protection of biodiversity and the generation of electrical energy from renewable energy sources (Arabadjieva, 2016; García, 2014; Razquin, 2014b). This clash of interests is also very likely in the implementation of offshore wind power installations. Any lessons learnt from the past experiences of the onshore wind industry in this regard may be useful in order to avoid the same problems in the future development of OWFs in Spain, which has one of the highest levels of marine biodiversity in Europe (Rodríguez-Rodríguez et al., 2016).

Several applications for onshore wind farm projects have been contested on the basis that they can constitute a serious threat to habitats and species protected by the Habitats Directive 92/43/EEC and the Wild Birds Directive 2009/147/EC (García, 2014; Razquin, 2014b), [L5]. Although in practice Spanish Case law tends to lean in favour of energy facilities, there is an attempt to promote the search for balance and a compatibility of interests, and where harmonization is impossible, the legal good that is more prioritized by the legal rules of the matter prevails over the alternative (García, 2014), [L6]. However, these legal rules appear to provide no solution in this respect, such that the problem can continue to be prolonged in practice (García, 2014). Another related issue, in which there has been more unanimous jurisprudence, is the interpretation that the protection of Natura 2000 spaces¹ implies that special attention should be paid to projects that

¹ The Natura 2000 Network comprises Special Areas of Conservation (aimed at the conservation of natural habitats and habitats of species of community interest), and Special Protection Areas for Birds (aimed at the conservation of migratory birds and certain species of birds). These spaces are regulated by Law 42/2007 on Natural Heritage and Biodiversity, under which any project that is likely to affect the species and habitats of these areas must be subject to an appropriate assessment. If the evaluation is negative, the project can only be authorized for “imperative reasons of overriding public interest” (including social or economic reasons), taking the appropriate compensatory measures. Those Natura 2000 sites located in the Spanish marine environment are part of the “Network of Marine Protected Areas” (created by Law 41/2010 on the protection of the marine environment), which also includes other legal categories of protection, such as “Marine Protected Areas” (MPAs) in the strict sense. Law 42/2007 defines MPAs as designated spaces for the protection of ecosystems, communities or elements of the marine environment that deserve special protection due to their importance, fragility or uniqueness. Conservation measures and exploitation limitations of the resources in these spaces will be set in their respective Plans and management instruments. Information about each Natura 2000 site and MPAs is available on: http://www.mapama.gob.es/es/costas/temas/proteccion-medio-marino/biodiversidad-marina/espacios-marinos-prottegidos/red-areas-marinas-prottegidas-espana/bm_emprot_rampe_espacios.aspx (accessed: 10.04.2018).



OWF: Offshore wind farm

EIS: Environmental impact study

EID: Environmental impact declaration

EIA: Environmental impact assessment

DGEPM: The general directorate of energy, policy and mines.

GDQEANE: The general directorate of quality and environmental assessment and natural environment

Fig. 2. Offshore Wind Farm Environmental Impact Assessment process in Spain.

“may affect” these protected areas, even where the installations are not located specifically in those areas (considering migration routes, for example) (Cubero, 2016; García, 2014; TJUE, 2011). The assessment must also consider “all species” that fall within the scope of normative protection (not just those species residing in the area, also taking migration into account) (Cubero, 2016; García, 2014).

A solution to this clash of interests could be established through the joint or coordinated processing of assessments and procedures, following the obligation imposed on Member States by the EIA Directive “where necessary” (EWEA, 2013). This new regulation is fundamentally due to the European Community’s objective of reducing inconsistencies and overlap between evaluations or procedures (Arabadjieva, 2016). However, the wording is less ambitious, leaving the decision of establishing this joint or coordinated approach to the discretion of the Member States, who are often reluctant to introduce this type of regulatory technique (Arabadjieva, 2016).

In addition, a coordinated approach could provide better protection of the environment by combining the procedural protection mechanism offered mainly by EIA, which essentially serves to inform the decision-making authority and to verify the potential impacts of a particular project, with the material protection standards used to establish substantive obligations, as achieved by the Habitats Directive by prohibiting as a general rule any adversely effect on the integrity of sites in the Natura 2000 network (Born, 2016; Council, 1992).

Likewise, through this level of coordination and joint processing, the rationalization and procedural simplification postulated by the EIA Directive could be achieved, which could speed up the evaluation process of offshore wind projects, facilitating the process for promoters and administrators. However, special care should be taken by EU member states when specifying the mechanisms by which this process is carried out, because the foregoing simplification can induce a risk of circumventing the effective evaluation of some important impacts related to environmental protection (Cubero, 2016).

Regarding the legislation in force in Spain, although the LEA 2013 expressly refers to Red Natura sites, it does not establish a concrete regulation for the environmental evaluation of projects that may affect a Red Natura 2000 area (Álvarez and Zamora, 2014; Ruiz, 2014).

Finally, it should be pointed out that some authors defend the idea that the aforementioned conflict of interest between the protection of a Natura 2000 area and the production of electricity through renewable energy sources should not be addressed during the processing of the EIA but in the subsequent final authorization of the project (García, 2014). Likewise, through appropriate maritime spatial planning, conflicts with marine protected areas can also be avoided prior to the EIA (European Parliament and the Council, 2014a).

4.2. Avoiding the unjustified splitting of offshore wind projects and the non-consideration of synergistic effects

A further cause of judicial conflicts is the fragmentation of onshore wind farm projects (considering the same project as several separate and independent projects), perhaps with the objective of the eluding objectives, provisions and requirements of the EIA Directive in some cases. In this respect, parameters such as the distance between parks, and the existence of common and shared lines, access, and infrastructure are used by Tribunals as indicators of the unitary nature of the wind farm (García, 2014).

Moreover, disputes have been reported resulting from a failure to account for the synergistic effects of a project on the environment in conjunction with another project nearby; in such cases both projects might individually be considered environmentally suitable, but their joint effects might not be (García, 2014).

Legal disputes have previously resulted from EISs in which, despite general assertions, the synergistic and cumulative effects of other wind farms nearby, or other infrastructure required by the wind farm (such as the network of cables to connect it to the grid) were not taken into

account (García, 2014), [L7]. Judicial decisions have therefore pointed to the need for the EIA to analyse jointly the potential synergistic effects of wind farms located in a nearby area rather than simply focusing on a partial analysis limited to the wind project to be installed (Born, 2016; Razquin, 2014b), [L8], [L9]. An omission of this type may cause the authorization to install the project in question to be cancelled (Alenza, 2014a) [L10].

At the same time, such omissions can be connected with a lack of quality of the studies and declarations of environmental impact. The new EIA Directive contains mechanisms to address this issue, specifying the content of the study in more precise terms, and establishing new requirements aimed at improving this quality (this matter is addressed more extensively in subsection 4.3). Furthermore, adequate maritime planning, based on the MSP 2014 Directive, could help to deliver better management of the above-mentioned synergistic and cumulative impacts (Wilhelmsson et al., 2010).

Some authors consider that the positive environmental effects of wind installations should be considered together with the negative and synergistic effects in the EIA (Alenza, 2014a). Specifically, the positive global environmental effects that could be achieved using the installation of renewable energies in the short, medium and long term should also be evaluated (Alenza, 2014a): Among these are of course the fight against climate change (Snyder and Kaiser, 2009), and also more localized effects in the marine area in question with respect to OWFs, such as their conversion into artificial coral reefs in which new habitats are created and developed, and their role in protecting species by deterring trawling in the locations concerned (EWEA, 2013; Rodríguez-Rodríguez et al., 2016; Wilhelmsson et al., 2010).

4.3. Improving the quality of the environmental impact assessment

The Onshore Wind Industry has been faced with other issues based on the content of the EISs, as presented by the developers, and in the EIDs as issued by the environmental body. In particular, a lack of quality and specificity in previous EIAs (including a lack of objective information and an insubstantial or superficial content) (Arabadjieva, 2016), and a failure to identify alternatives or providing only a vague description of these. As previously indicated, EISs in which cumulative and synergistic effects have not been evaluated have proved controversial. Likewise, Tribunals have revealed a variety of defects in numerous EIDs because of errors made in the reasoning of its conclusions and the omission of fundamental data (e.g., a failure to evaluate synergistic effects with other terrestrial wind farms or analyse fully the effects of the installation on the avifauna) [L10]. Similarly, other EIDs have been controversial because they were incongruent with the EIS through a failure to assess or resolve issues raised by the promoter (e.g., by not assessing the foreseeable impact of the project on the basis of the corrective measures proposed in the EIS) (Alenza, 2014a), [L11].

The new EIA 2014 directive improves the elaboration of EISs and EIDs through the search for improvements in the quality of the information provided to the decision-making body (Arabadjieva, 2016). This is achieved in several ways:

On the one hand, the EIS should be drawn up by the developer in a more complete form, ensuring the provision of more detailed information, and to that end, the Directive draws up in a clearer, more precise and more extensive manner the outcomes to which the content of the EIS should be adjusted (thus e.g., the promoter is required to consider “alternative measures” in greater depth when developing the study) (European Parliament and the Council, 2014b; García, 2016). This facilitates the control, review and imposition of the obligations placed on the promoter by the authorities (Arabadjieva, 2016).

On the other hand, the Directive requires the decision-making body to take “due account” of all the information that the developer (through the EIS) and the interested parties (through a consultation phase) have provided during the EIA process, and stresses the importance of issuing the decision in a reasoned and justified manner, including its immediate

and accurate reporting to the public and the authorities (justifying how the decision has been reached by evaluating the previous information provided by the promoter and by the consultees) in order to achieve greater transparency and control in decision-making.) (Arabadjieva, 2016; European Parliament and the Council, 2014b). On the basis of this, the judges may require the competent authority to comply with the obligation to examine fully the potential effects of the project (García, 2016).

Likewise, the Directive introduces as a requirement the qualification and competence of the experts responsible for preparing the EIS submitted by the developer, and also establishes the obligation that the authority responsible for assessing all the information provided must have adequate knowledge to examine the EIA (European Parliament and the Council, 2014b; García, 2016). Because the basis of the EIA is environmental information, its preparation and assessment by competent and experienced technicians helps to increase its effectiveness (García, 2016).

4.4. Reducing procedural delays without compromising a complete evaluation of OWF effects in the marine environment

Another problem described by developers of OWF projects is related to delays, with the consequent increase of costs in the processing of all the necessary procedures to install OWFs. In this respect, the lack of environmental data and the scientific uncertainty regarding the potential effects of these technologies on the marine environment have been reported as the main causes of delays in the development of offshore wind energy (Scarff et al., 2015; Soria-Rodríguez, 2016). It has also been pointed out that the lack of information collected in the EIA has led the authorities to require the developer to submit new and additional environmental information, which may entail new research, an increase in costs, and delays due to the presentation of unnecessary and repetitive environmental data (Gibson and Howsam, 2010; Scarff et al., 2015). Initial efforts in the scoping phase of the EIA could prevent further problems in the subsequent procedural steps (Gibson and Howsam, 2010).

Proper MSP could help to identify previously relevant environmental information, avoiding delays in the EIA (Portman et al., 2009).

Given the limited data, some authors propose a risk-based approach, arguing that this could facilitate the development of OWF installations (Wright et al., 2016; Wright, 2014). However, it may be difficult to align this system with the precautionary principle, which is broadly enshrined by environmental law in Spain.

The EC and the new EIA Directive are both in favour of further simplification and rationalization of the EIA procedure, which has an important role in the approval procedure for the installation of OWFs. Thus, in all cases (and in other marine energy schemes), regardless of their installed capacity, the EIA is a prerequisite to obtaining both the authorization to install such structures and the concession of occupation in the public domain [L1]. Therefore, any excessive delay in processing an EIA would in turn delay the granting of the aforementioned authorizations, and ultimately delay the construction and exploitation of the OWF. However, regulatory techniques to avoid delays should not be used to reduce minimum terms or to eliminate important procedural steps in the EIA process, but should instead relate to a sense of improving coordination with other procedures and evaluations (Alenza, 2014b). Such coordination includes the Strategic Environmental Assessment, with respect to the use of certain data, and the evaluations derived from the Birds and Habitats Directives, when the project may affect the Natura 2000 Network, as set out in the EIA 2014 Directive. In this same regard, it has been pointed out that there is a clear lack of coordination between the EIA and the authorization procedure for the installation (Alenza, 2009). Consequently, improving synergies between the two procedures could improve their rationalization and save time.

In the same terms, the establishment of certain specific deadlines

and the requirement by the EIA Directive to achieve a higher quality in evaluations (both in the EIS carried out by the developer and in the EID issued by the environmental body) and their more detailed content may also contribute to achieving the goal of reduced delays and a lower bureaucratic burden.

An important element of the EIA procedure that could also speed up the processing of the EIA, without compromising the completeness of the analysis of the environmental effects, is the drafting of a scoping document by the environmental body; this phase would allow better handling of information from the beginning of the EIA, which could then minimize the amount of additional data required of the promoter in the later stages of the procedure and thus reduce any associated delays. Therefore, an initial effort in the scoping phase of the Environmental Assessment could help to prevent further problems in the subsequent procedural steps (Gibson and Howsam, 2010). In this respect, the Directive - and the LEA, when regulating the ordinary EIA - leave the elaboration of the scoping document to the discretion of the promoter (therefore, without granting the obligatory character to this procedure - this aspect will be more extensively evaluated in the following subsection). In the simplified EIA procedure, the LEA does not consider the scoping phase. Although this omission at first sight appears to shorten the duration of the procedure by eliminating this step, it may reduce the initial data handling and thus result in an extension to the duration of the EIA process.

4.5. Increasing public participation in the environmental impact assessment process: raising grassroots support and achieving better-informed decision-making

Offshore wind power has generated social controversy in Spain, especially at local level in several coastal municipalities potentially affected by the proximity of the facility (Sanz, 2014), all of which has hampered the development of OWFs in Spanish marine waters (Colmenar-Santos et al., 2016; Rodríguez-Rodríguez et al., 2016). In this regard, in relation to the conflict surrounding the request for the installation of an OWF in the Trafalgar Sea (south of Spain), González and Estévez (2005) and Todt et al. (2010) noted that, while large associations (e.g., Ecologistas en Acción, Greenpeace, los Verdes de Andalucía) argued in favour of the installation of marine wind farms, small local environmental groups and civic groups (e.g., Asociación Gaditana en defensa de la Naturaleza), governments of affected municipalities² (Conil, Véjer and Barbate), and fishermen's associations opposed the project. However, many of the stakeholders who argued against the project indicated that they could consider the project acceptable if, among other factors, promoters took account of local knowledge and specific concerns of the local public (González and Estévez, 2005; Todt et al., 2010).

Some authors consider public opposition, which is mainly a result of a lack of trust, to be one of the main obstacles to the development of offshore wind (Hansen, 2011). Therefore, success in the development of this industry depends fundamentally on increasing transparency and trust (Hansen, 2011). Likewise, the Spanish Maritime Cluster considers it important to have the active participation of sectors that could oppose these projects in large measure, and to achieve more transparent information (Cluster marítimo español, 2011). In this respect, it may be of interest to consider the importance of citizen participation in the

² Coastal Municipalities and Autonomous regions where an OWF project is to be located fall within the legal concept of "affected public administrations" (Article 5 of the LEA), and therefore must be consulted by the environmental body. However, their participation in the EIA of an OWF project is practically limited to the consultation phase. In contrast, the Central government has high powers in the EIA process of OWFs under article 11.1 of the LEA, which establishes that the environmental body will belong to the Public Administration to which the substantive body responsible for authorizing the project belongs. In the case of an OWF project the substantive body (the GDQANE) belongs to the Central Government -and thus, the environmental body is also part of the Central Government (the GDEPM)-.

environmental assessment process, given that greater access to information and more effective citizen participation could help to achieve more consensual EIAs.

On the one hand, it is true that the EIA directive introduces some modifications that extend avenues for public participation in the EIA procedure with respect to the previous Directive and to current Spanish legislation. This is especially the case when specifying the obligation of Member States to ensure that the public is able to access the relevant information by electronic means, thereby forcing the Spanish legislator to modify the LEA (which does not currently specify this obligation of electronic dissemination), avoiding all the obstacles of space and time associated with on-site access to the information [L2], (European Parliament and the Council, 2014b; Nogueira, 2016).

However, on the other hand, despite some advances along these lines, the EIA Directive does not incorporate substantial modifications aimed at increasing the degree of citizen participation (Arabadjieva, 2016).

With regard to Spanish domestic law, there are several aspects that could be improved.

On the one hand, the LEA, in contrast to what it establishes for the ordinary Environmental Assessment, does not contemplate the holding of the public information phase in the simplified Environmental Assessment, which may affect wind farms of less than 30 MW or other marine renewable energy installations, leaving the door open for the authority to decide (without relying on citizen participation) whether to subject the project to EIA, which could contravene the Aarhus Convention and Law 27/2006 (Ruiz, 2014). However, Royal Decree 1028/2007, regulating the authorization procedure for the installation of OWF and other marine renewable energies in general, and RD 1955/2000, address this omission by establishing a joint public information phase and a consultation proceeding in which by establishing a joint public information phase and a consultation proceeding on the EIS along with the project and the request for occupation of the public domain [L1], [L3].

Another legislative obstacle to public participation stems from the strict requirements for a group to be considered as an “interested persons”³ able to participate in the consultation phase, especially the requirement to have been functioning during at least 2 years. This slows down the intervention of the new groups created as a result of the particular problem related to the project submitted for EIA (Nogueira, 2016).

In the same way, participation in the EIA process could be improved by making mandatory the implementation of the scoping document (instead of leaving this decision in the hands of the promoter as established by the Directive and the LEA). It allows the possibility of consulting “qualified actors” at an early stage of the procedure, which would help to identify the concerns of those affected by the project from the beginning, and thus their views can be taken into account by the promoters in the project and in the EIS (Cubero, 2016; Nogueira, 2016).

In addition, encouraging early information and the participation of

the public, without concealing any relevant information or without postponing it until the later phases, may help to encourage citizens' support for the project, rather than triggering their opposition (Hansen, 2011). In addition, a reform of the LEA establishing a mandatory consultation process in the drafting of the scope document in the transition from the simplified to the ordinary evaluation would also contribute to improving the degree of citizen participation (Nogueira, 2016).

The LEA also does not guarantee citizen participation when substantial changes are made to the project or EIS after the public information phase. However, the possibility of holding a new consultation process in relation to new relevant information that may arise later on could improve decision-making by the environmental body (Nogueira, 2016).

The main interactions between the proposed solutions are shown through an overall diagram in Fig. 3.

5. A practical study of the environmental impact assessment of the offshore wind farm project “FLOCAN 5”

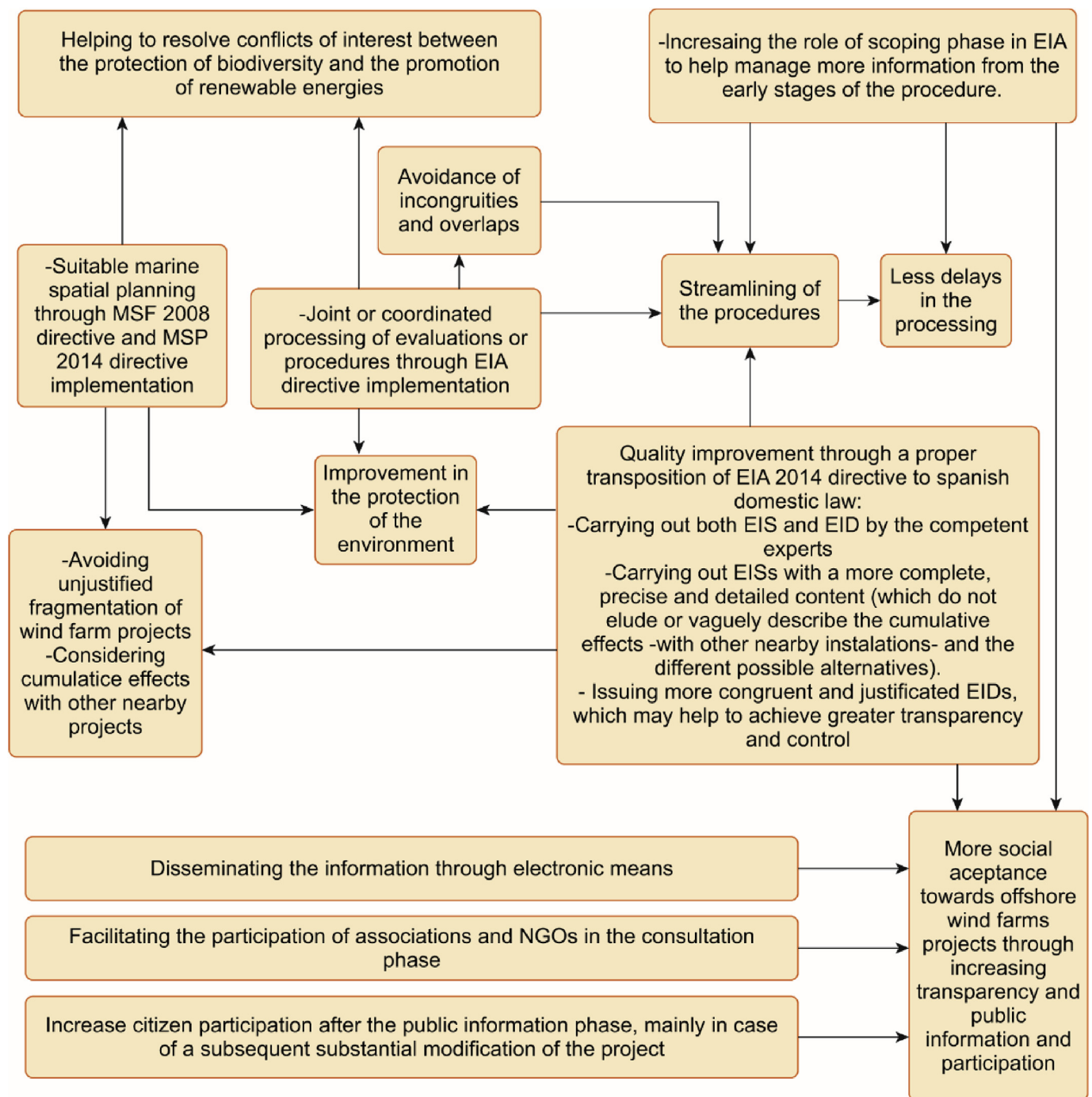
The offshore wind farm project FLOCAN 5 of 25 MW aims at installing 5 wind turbines of 5 MW each in front of the coastal area of the municipality of San Bartolomé de Trijana (Las Palmas de Gran Canaria, Canary Islands).

Its processing was initiated by the “simplified EIA” procedure established by the LEA on the basis that its installed capacity was less than 30 MW, the number of wind turbines were less than 50 and there was no OWF located less than 2 km away. However, the environmental body decided on April 25, 2017, applying the Precautionary Principle, its submission to an “ordinary EIA” on the grounds that the project may imply a significant impact on the Natura 2000 Network and on the species of animals protected by Law 42/2007 on Natural Heritage and Biodiversity (Ministerio de Agricultura y Pesca, Alimentación y Medio Ambiente, 2017). Likewise, the environmental body has noted that it is impossible to adequately assess the impact that the project may have on the environment due to the absence of other alternatives and the existence of a nearby OWF project in progress –“Parque Experimental Mar de Canarias”-. In this sense, the Environmental Council of Gran Canaria argued in favour of the processing of FLOCAN 5 project through an “Ordinary EIA” highlighting that the evacuation lines of both projects would be less than 2 km from each other, following a similar route inland (Ministerio de Agricultura y Pesca, Alimentación y Medio Ambiente, 2017).

As noted in section 4.1, even if a project is located outside a Natura 2000 network zone, it may affect this space and legally protected migratory species. Therefore, special attention must be paid to these circumstances throughout the EIA process. This issue was identified in the consultation phase of the processing of FLOCAN 5 project. In this sense, several reports highlighted the proximity of the selected site to locate the project with the Special Protection Area for Birds “ES0000112 Juncalillo del Sur” (which is also a Special Area of Conservation), characterized because of its importance for migratory birds (especially herons and waders, highlighting the Kentish Plover, which nests in the zone and is cataloged as “vulnerable” in the Spanish Catalogue of Endangered Species) (Ministerio de Agricultura y Pesca, Alimentación y Medio Ambiente, 2017). As reflected in the EID, the developer have to conduct detailed studies on the species present in the area of action and the impact of the project on each one of them and take into account the existence of migration corridors, areas of reproduction and rest in the zone (Ministerio de Agricultura y Pesca, Alimentación y Medio Ambiente, 2017).

As noted in section 4.2, legal literature (e.g., Cubero, 2016; García, 2014) and jurisprudence (TJUE, 2011) have pointed out the need to consider in the EIA (especially in the EIS) the synergistic and cumulative effects between nearby wind farms. In this sense, as the EID and the reports presented in the consultation phase pointed out, the EIS presented in relation to the OWF FLOCAN 5 project does not take into

³ According to the LEA (art 5) “Interested Persons” are: a) those considered as such by article 4 Law 39/2015 on the Common Administrative Procedure of Public Administrations and b) those non-profit legal entities that, in accordance with Law 27/2006 on access to information, public participation and access to justice environmental matters, meet the following conditions: i) their statutes must pursue the protection of the environment and it is possible that this target could be affected by the EIA; ii) this entities must have been legally constituted -pursuing their goals- for more than two years, iii) these entities must conduct their activities within the territorial scope affected by the project. Those individual or legal persons that are not included within the legal concept of “interested person” are considered “publics”. “Publics”, unlike “interested persons”, do not have access to consultation phase. Thus, many key actors, such as environmental groups (e.g., NGOs and associations aimed at the protection of the biodiversity and the marine environment) that have been recently constituted in light of the problem regarding the OWF project as well as academic institutions and experts in environmental issues cannot participate in the consultation phase. However, their active participation in this phase could encourage more support and less public resistance in project approval, as well as providing valuable information in the process (Hansen, 2011; Nogueira, 2016).



EIS: Environmental impact study

EID: Environmental impact declaration

EIA 2014 Directive: The directive 2014/52/EU

EIA: Environmental impact assessment

MSF 2008 Directive: The marine strategy framework directive 2008/56/EC

MSP 2014 Directive: The maritime spatial planning directive 2014/89/EU

Fig. 3. Analysis and proposal of various regulatory solutions aimed to avoid key problems related to the Environmental Impact Assessment of Offshore Wind Farms in Spain.

account the possible synergistic and cumulative effects with the OWF project “Parque Experimental Mar de Canarias”, nor with the nearby terrestrial wind farms in operation -especially, in relation to the synergistic effects on the avifauna-(Ministerio de Agricultura y Pesca, Alimentación y Medio Ambiente, 2017).

As stated in Section 4.3, legal doctrine has identified a lack of quality and specificity in previous EIAs. In this sense, several of the organizations consulted in relation to the processing of the EIA of the OWF FLOCAN 5 project, pointed out that the EIS had lacks information on aspects of great importance, being necessary a detailed description

of the selected alternative and the identification of other alternatives, an analysis of the effects of the project on the Natura 2000 zone and on the species of birds that may be affected, and an study of potential synergistic and cumulative effects with the OWF project “Parque Experimental Mar de Canarias” and the nearby onshore wind farms) (Ministerio de Agricultura y Pesca, Alimentación y Medio Ambiente, 2017).

Likewise, there was a delay in the processing of the Simplified EIA of the FLOCAN 5 project. Indeed, there were 16 months between the reception of the request of the promoter and the decision of the environmental body of submitting the project to an “Ordinary EIA”. This delay was to a large extent a consequence of the lack of detailed information of the EIS, which had to be corrected by the promoter, as well as the uncertainty on the synergistic and cumulative effects of the project on avifauna and the Natura 2000 (Ministerio de Agricultura y Pesca, Alimentación y Medio Ambiente, 2017).

6. Concluding remarks

Several solutions have been proposed to solve the problems related to EIA of projects for the installation of OWFs:

- Establishing in Spanish domestic law the coordinated or joint processing of the procedures and evaluations regulated by the Habitats and Birds Directives and the EIA Directive, specifically in respect of the environmental assessment of projects that may affect areas and species protected under the Natura 2000 Network. This can help to resolve conflicts of interest between protecting biodiversity and energy production through renewable energy sources when a marine wind farm project can affect species or locations that make up the Natura 2000 Network. This could also result in more effective protection of the environment and a procedural rationalization where inconsistencies and delays caused by a lack of coordination between evaluations and procedures could be eliminated. Some of the specific measures that could be applied consist of regulating both assessments in a single legal text (e. g in the LEA) (Ruiz, 2014), establishing a coordinating authority of both procedures and regulating parallel steps (García, 2016). However their implementation can be a difficult task for the legislator, since the content of both evaluations is different (García, 2016; Ruiz, 2014).
- By improving the quality of EIS and EID (preventing inconsistencies between them, avoiding omissions of fundamental data and achieving adequate rationale and justification) -in the direction followed by the EIA 2014 Directive-(e.g., through the provision of guidance documents that offer detailed instructions that can help promoters in the elaboration of the EIS as well as the environmental body in issuing the EID) and by adequate maritime spatial planning -on the basis of the new MSP 2014 Directive-an early solution can be found to the potential problems related to the unjustified fragmentation of projects and the non-consideration of synergistic environmental effects arising from interactions between nearby offshore wind farms. The development of Maritime Spatial Plans in Spain is only a matter of time, since the MSP 2014 Directive establish that these must be established at the latest by 31 March 2021. On the other hand, the improvements introduced by the EIA 2014 Directive in terms of the quality of the content of the EIS and in the justification and congruence of the EID can lead to better informed and more effective decisions taking into account all relevant impacts and alternatives, increasing transparency and control.
- Likewise, in order to make a full assessment of the environmental effects of an OWF project, it may be useful to consider in the

valuation both the negative and the positive aspects, such as the fight against climate change, the role of OWF foundations as artificial reefs around which new habitats can form, and their protective role against trawling. This could be fully achieved through the establishment of guidelines or specific provisions in the LEA that help both the promoters when studying, measuring and reflecting these positive effects in their EISs in an exact and quantifiable way and the environmental body when taking them into account when issuing the EID.

- Further coordination between the LEA and the SEA, and with the necessary procedure to obtain authorization for the installation of an OWF, could help to avoid procedural delays. The coordination between the substantive procedure and the EIA procedure could be improved through the regulation of both procedures in a single normative text, the provision of guidance about the main interactions and points of connection between both procedures and the establishment of a system of a single-window system in which a single agency is responsible for coordinating all steps of both procedures, facilitating a joint and integrated processing of them (Salvador et al., 2018).

Similarly, enhancing the role of the scoping phase - which to date is not envisaged for the simplified Environmental Assessment and which is regulated as an optional procedure by the EIA Directive and by the LEA for the Ordinary Environmental Assessment - could help to avoid the delays that cause concern to stakeholders in the EIA processing of OWF projects. Thus, this measure could be implemented through the inclusion of the Scoping phase in the simplified EIA and the consideration of this stage as a mandatory phase (both in the Ordinary EIA and the Simplified EIA).

This is mainly because it would help in the handling of relevant information from an early stage of the procedure, which would in turn address the lack of data and uncertainty about the environmental effects that the OWF project could cause at the particular site; it could also avoid the delays caused by unnecessary and repetitive requests for data by the authority to developers in later phases of the procedure. On the other hand, by clarifying the content of the EIS -in line with the EIA Directive-bureaucratic burdens can also be improved.

- Increasing the level of information and citizen participation in the EIA process can help to yield better-informed decisions and to achieve greater trust and social support for OWF projects, facilitating their development. Among the proposals for improvement include introducing in the LEA the obligation to disseminate relevant information through electronic means - as established in the EIA 2014 Directive; expanding the legal concept of “interested persons”, ensuring the participation of environmental associations and NGOs in the consultation phase, regardless of the date of their constitution (Cubero, 2016; Nogueira, 2016); and facilitating effective citizen participation in subsequent phases as well as holding a public hearing when there has been a substantial modification of the project (Nogueira, 2016). In addition, the consideration of the Scoping phase as a mandatory step could help provide for early and effective participation (Cubero, 2016), since this stage includes a consultation sub-phase.

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Appendix

Table 3

Offshore wind farm problems related to EIA, necessary improvements in Spanish domestic regulations, and key legal references.

Actual OWF Issues related to EIA:	Necessary improvements in Spanish domestic regulations::	Certain European and Spanish key normative provisions and Court Judgements:
<ul style="list-style-type: none"> - Conflicts between Renewable Energy Production and Biodiversity - Lack of effective environmental protection - Need of streamlining the process, reducing inconsistencies and overlaps. 	<ul style="list-style-type: none"> - more Coordination between EIA of OWF projects and Red Natura 2000 evaluations in Spanish domestic Law 	<ul style="list-style-type: none"> - art 2.3 EIA 2011 Directive (amended by EIA 2014 Directive) (Soria-Rodríguez, 2016) - Art. 6 Habitats Directive 92/43/EEC 1992. And art 45 y 46 Law 42/2007, of 13 December, on Natural Heritage and Biodiversity - [L5], [L6]
<p>Delays, high costs and effort by developers due to:</p> <ul style="list-style-type: none"> - lack of coordination between EIA a other procedures (such as OWF Installation process) - Lack of data. Scientific uncertainty about the effects of OWFs on the marine environment: <p>some already submitted data are required by the authority to developers.</p> <p>Submission on of some unnecessary data</p>	<ul style="list-style-type: none"> - more coordination between EIA-OWF Installation in Spanish domestic Law - further efforts in achieving a major coordination between EIA-SEA (as is done for instance by art 13.2 LEA) - Setting more specific deadlines (however, the new deadlines introduced by the EIA Directive do not affect those already set by Spanish domestic legislation) - Improving the role of scoping phase can contribute to achieve greater information management from the initiation of the EIA procedure - Previous solutions through maritime spatial planning 	<ul style="list-style-type: none"> - art 5.1 “in fine” EIA 2011 Directive (amended by EIA 2014 Directive) y art 13.2 LEA 2013 (Soria-Rodríguez, 2016) - art 4.6, 6.7 EIA 2011 Directive (amended by EIA 2014 Directive) - art. 5.2 EIA 2011 Directive (amended by EIA 2014 Directive)
<ul style="list-style-type: none"> - Early opposition by citizens to OWF projects by the general public (lack of social consensus) 	<p>Enhancing information and citizen participation in EIA:</p> <ul style="list-style-type: none"> - Provide the dissemination of information through electronic means. (Although the Directive establishes this obligation, it is not expressly referred to in the spanish domestic law). - Facilitating the participation of recently created environmental associations and NGOs in the consultation phase as “interested persons” - Increasing citizen participation in subsequent stages to the public information phase when substantial project modifications are made 	<ul style="list-style-type: none"> - arts 6.1, 6.2, 6.5 Y 6.7 EIA 2011 Directive (amended by EIA 2014 Directive) and arts. 36 y 38 LEA (Soria-Rodríguez, 2016)
<ul style="list-style-type: none"> - Lack of quality of EIS and EID that have led to defective evaluations, delays and rejections of renewable projects. - Non-consideration of cumulative effects between nearby wind farms 	<ul style="list-style-type: none"> - Improving the quality of the EIS and the EID (in line to the EIA 2014 Directive) - consideration synergic effects between nearby wind farms 	<ul style="list-style-type: none"> - art 5, 8, 9 and Annex IV EIA 2011 Directive (amended by EIA 2014 Directive), and [L10], [L11] - [L7], [L8], [L9], [L10]

SEA: the Strategic Environmental Assessment of the Spanish Coast for the Installation of Offshore Wind Farms. LEA: the 21/2013 Environmental Assessment Law. EIS: Environmental Impact Study. EID: Environmental impact declaration. OWF: Offshore Wind Farms. Art: legal article. *EIA 2011 Directive is the previous directive, amended by the EIA 2014 Directive.

Spanish domestic legislation and court judgements

[L1] Ministerio de la Presidencia. REAL DECRETO 1028/2007, de 20 de Julio, por el que se establece el procedimiento administrativo para la tramitación de las solicitudes de autorización de instalaciones de generación eléctrica en el mar territorial. BOE-A-2007-14657. < https://www.boe.es/diario_boe/txt.php?id=BOE-A-2007-14657 > , 2007 (accessed).

[L2] Jefatura del Estado. Ley 21/2013, de 9 de Diciembre, de evaluación ambiental. BOE-A-2013-12913, < https://www.boe.es/diario_boe/txt.php?id=BOE-A-2013-12913 > , 2013 (accessed).

[L3] Ministerio de Economía. REAL DECRETO 1955/2000, de 1 de Diciembre, por el que se regulan las actividades de transporte, distribución, comercialización, suministro y procedimientos de autorización de instalaciones de energía eléctrica. BOE-A-2000-24019. < <https://www.boe.es/buscar/act.php?id=BOE-A-2000-24019> > , 2000 (accessed).

[L4] Jefatura del Estado. Ley 22/1988, de 28 de julio, de Costas. BOE-A-1988-18762. < <https://www.boe.es/buscar/act.php?id=BOE-A-1988-18762> > . (accessed).

- [L5]STS 26 Mayo 2009 <http://www.poderjudicial.es/search/contenidos.action?action=contentpdf&database=match=TS&reference=4610662&links=&optimize=20090618&publicinterface=true> (accessed).
- [L6]STS de 30 de Abril de 2008 <http://www.poderjudicial.es/search/contenidos.action?action=contentpdf&database=match=TS&reference=125618&links=&optimize=20080529&publicinterface=true> (accessed).
- [L7]STSJ Castilla y León de 10 de Junio de 2009 <http://www.poderjudicial.es/search/contenidos.action?action=contentpdf&database=match=AN&reference=4674780&links=%22767%2F2008%22&optimize=20090730&publicinterface=true> (accessed).
- [L8]STS de 14 Oct 2013 <http://www.poderjudicial.es/search/contenidos.action?action=contentpdf&database=match=TS&reference=6867082&links=e%C3%B3lica&optimize=20131030&publicinterface=true> (accessed).
- [L9]STS de 11 Dic de 2013 <http://www.poderjudicial.es/search/contenidos.action?action=contentpdf&database=match=TS&reference=6926612&links=e%C3%B3lica&optimize=20140113&publicinterface=true> (accessed).
- [L10]STSJ 30 Septiembre 2013 <http://www.poderjudicial.es/search/doAction?action=contentpdf&database=match=AN&reference=6862128&links=&optimize=20131021&publicinterface=true> (accessed).
- [L11]STS de 21 de Enero de 2014 <http://www.poderjudicial.es/search/contenidos.action?action=contentpdf&database=match=TS&reference=6946103&links=e%C3%B3lica&optimize=20140131&publicinterface=true> (accessed).

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